REMARKS

A Request For Continued Prosecution and Preliminary Amendment were filed in this case after final rejection on March 24, 2004. A non-final Office Action was mailed by the Examiner on May 17, 2004, making a response due on or before August 17, 2004. Since this amendment is being timely filed, no further fee is thought to be due at this time. If any additional fee is due, please charge the same to Applicant's Deposit Account No. 50-2555 (Whitaker, Chalk, Swindle & Sawyer, LLP).

Claims 4-5 and 7-11 are presently pending in the application. The Examiner has raised certain objections to the language of Claims 4-5 and 7-11 under 35 U.S.C.§112. Applicant agrees with the interpretation of the "bell connection" and "bell end connection" set out in the Examiner's remarks and has amended Claims 4 and 5 accordingly. The language regarding the spirally wound melt profile has also been amended as suggested by the Examiner. Accordingly, the rejection of these claims under 35 U.S.C.§112 is thought to be overcome.

The Examiner also continues to reject Applicant's Claims 4-5 and 7-11 substantively under 35 U.S.C.§103(a) based upon the same art as was cited in the previous office action, namely Sznopek et al., Sundqvist et al. and Corbett, Jr.. In the latest Office Action, the Examiner states that he has not further considered Applicant's argument that Sundqvist is not a "Rieber" type process, since "all that is claimed is manufacturing the connector, not the act of coupling the pipes." Applicant has amended remaining independent Claims 4 and 5 with these comments in mind. Both of the claims now describe a method of forming a polyethylene pipe "coupling" including a bell end connection formed as previous described. The sealing action of the pre-stressed and pre-located gasket is now explicitly set forth in the amended claim language, as follows:

> *"installing a mating male section of polyethylene pipe within an end opening of the bell connection, the mating section of polyethylene pipe having an exterior surface, the pre-stressed and pre-located integral gasket forming a sealing surface with respect to the mating male pipe section in making up the polyethylene pipe coupling."*

Since Applicant is now claiming the step of installing the mating male section of pipe, Figure 6 of the drawings has been amended to show the male pipe end. Applicant would submit that such a step is inherently obvious to those skilled in the art and in view of the discussion of the Rieber process in Applicant's background discussion and, as such, does not constitute new matter.

Sundqvist is the only reference cited by the Examiner which shows winding a polyolefin melt profile onto a mandrel as a step in plastic pipe manufacture. However, Sundqvist is not concerned with any of the problems of a "Rieber" type manufacturing process for locating a prestressed and "anchored" sealing gasket within a pipe groove, with the pipe groove being formed around the gasket as the pipe end is being formed. Sundqvist does not locate a sealing gasket on a mandrel as one step in the manufacturing process. As an afterthought, Sundqvist show a sealing type object 12 and a "welding ring" 13. However, the sealing type object shown as 12 in Figure 3 of Sundqvist is located on the pipe exterior, rather than being applied as called for in Applicant's amended claims. It is not readily apparent what the object 13 is intended to represent in Sundqvist. However, it is not located on a mandrel during the formation of a bell connection, as called for in Applicant's claim language. It is obviously installed in a post-manufacturing step.

Likewise, the addition of the Sznopek teaching fails to arrive at the presently claimed invention. Applicant has made a number of amendments to Claims 4 and 5 to better define the type and location of the ultimate groove which corresponds to the type of groove which would be formed in the "Rieber" process and the mandrel which would be used in such a process. Thus, the mandrel is now described as having a cylindrical inner and outer extents with the "region of decreased external diameter containing the elastomeric gasket." These claim features are intended to emphasize the intended use of Applicant's pipe coupling in a Rieber type sealing system. Applicant fails to see how the "mandrel"50 of Sznopek can be construed as meeting the newly added claim features. Nothing about Figure 4 of Sznopek would suggest to one how to form a Rieber type pipe coupling for the cylindrical pipe ends of two mating sections of polyethylene pipe.

As previously pointed out, Sznopek uses two annular rubber gaskets 30, 30', and a supported sleeve portion 36. A polyester body 10 is "built up" by applying a "length of fiber glass roving" impregnated with a polyester hardening system (Col. 7, lines 22-24), followed by an axial glass reinforcement 17 (col. 8, line 2). The fiber glass material which is used may be "fiber glass roving strands" (Col. 7, lines 47-48). Also, circumferential and helical wraps of "scrim" may be utilized (Col. 8, line 4). Winding scrim about a gasket on a mandrel is not equivalent to Applicant's method for forming a polyethylene pipe coupling in which a mating section of polyethylene pipe is installed within and end opening of the bell connection where a pre-stressed and pre-located integral gasket forms a sealing surface with respect to a mating male pipe section during the make up of the polyethylene pipe coupling.

Combining Sundqvist with Sznopek would not arrive at Applicant's claimed invention, since

Sundqvist's mandrel has a smooth exterior surface which is not equipped to locate a gasket. Note also that the Sundqvist mandrel transitions from a cylindrical portion 3 to a "conical" portion 6 at the point at which the winding occurs. Applicant's claimed cylindrical inner and outer extents spanning the "region of decreased external diameter" is not shown or suggested. Nothing would suggest that Applicant's sealing gasket be first positioned on the mandrel of Sundqvist and then wrapped with roving strands or scrim as taught by Sznopek. Figure 4 of Sznopek shows a mandrel having a main body portion 52 in the form of a cylindrical steel body which includes end portions 54 extending from the cylindrical portion to a hub (Col. 8, lines 52-54). This configuration does not meet Applicant's present claim limitations and would not provide a pre-stressed and pre-located sealing gasket for the Rieber type sealing application, as presently claimed by Applicant. The mandrels are different in design because of the different end applications which are intended.

Based upon the above arguments and amendments, Claims 4-5 and 7-11 are thought to be allowable over the art of record and an early notification of the same would be appreciated.

No additional fee is thought to be due at this time. If any additional fee is due for the continued prosecution of this application, please charge the same to Applicant's Deposit Account No. 50-2555 (Whitaker, Chalk, Swindle & Sawyer, LLP).

Respectfully submitted,

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Appendix:

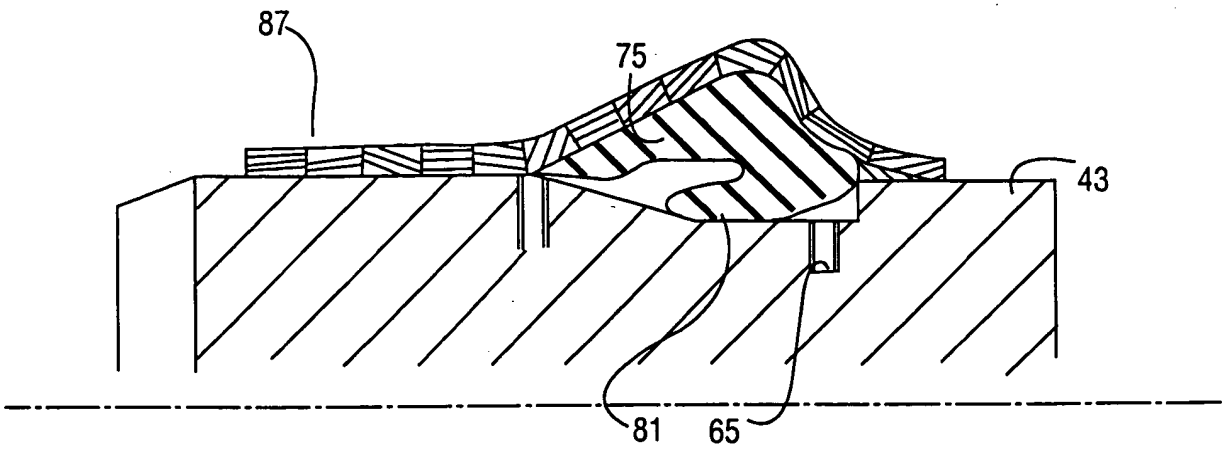

FIG.5

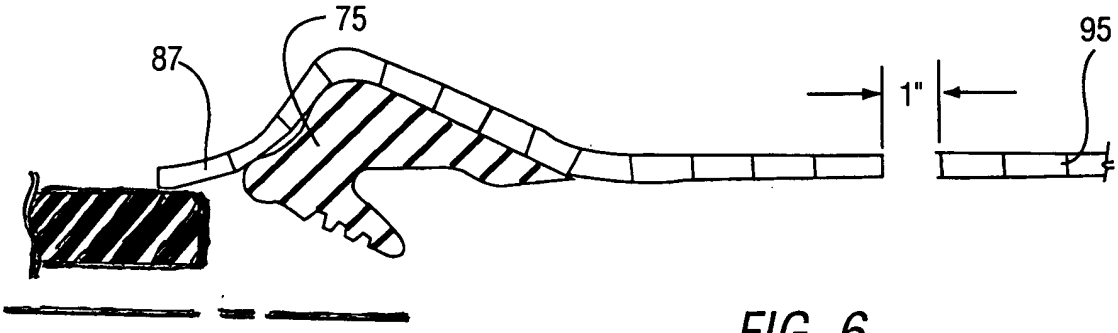

FIG. 6